DOCUMENT RESUME

ED 352 013 IR 015 842

AUTHOR	Stoll, Peter F.
TITLE	SED/Apple Computer, Inc., Partnership Program.
INSTITUTION	New York State Education Dept., Albany. Bureau of Technology Applications.
PUB DATE	91
NOTE	16p.
PUB TYPE	Reports - Descriptive (141)
JOURNAL CIT	Technology Applications Quarterly; v2 n2,3 Win-Spr-Sum 1991
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Computer Networks; Computer Software; *Computer Uses in Education; Corporate Support; Educational Technology; Elementary Secondary Education; *Long Range Planning; *Microcomputers; Private Sector; Public Policy; Public Sector; *School Business Relationship; State Departments of Education; Telecommunications
IDENTIFIERS	Apple Computer Inc; Networking; New York State Education Department; Workstations

ABSTRACT

In 1990, the New York State Education Department (SED), Apple Computer, Inc., Boards of Cooperative Educational Services (BOCES), and school districts formed a partnership to explore the contribution technology can make to schools based on Apple Computer's Learning Society and SED's Long-Range Plan for Technology in Elementary and Secondary Education in New York State. The partnership, reported on by these two journal articles, includes two major phases. In Phase I, Partnership Projects, five school districts--Buffalo City Schools, Levittown Union Free School District, Somers Central School District, New York City Community School District #27, and Newburgh City Schools--received significant amounts of hardware, software, training, and technical assistance, and regional meetings were held to review the partnership; to develop plans for connecting teachers, students, and administrators to Technology Network Ties (TNT) for statewide communications; developing approved specifications for classroom and building networking; and planning a comprehensive staff development program for effective integration of technology in the classroom. In Phase II, five public school districts and one nonpublic school were selected to receive teacher and student computer workstations, cabling, software products, training, and technical assistance for installation and networking. Profiles of the six sites are given: Ithaca City School District; East Ramapo Central School District; Hyde Park Central School District; New Hartford Central School District; New York City Community School District #24; and Polytechnic Preparatory Country Day School. Maps of SED/Apple Phase II Sites are appended. (ALF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Technology Applications Quarterly

WINTER 1991
VOLUME 2 • ISSUE 2

Published by the Bureau of Technology Applications
The University of the State of New York/
The State Education Department

ED352013

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SED/Apple Computer, Inc. Forge Parternship Program

- State Department Programs
- Using Computers in the Writing Process
- Technology Department Programs
- Computer Scheduling
- Telecommunications
- Distance Learning
- Special Technology Activities
- Computer Curriculum Overviews
- Calendar
- Letters to the Editor

On September 28, 1990, Commissioner Thomas Sobol approved a partnership between the State Education Department, Apple Computer, Inc., Boards of Cooperative Educational Services (BOCES), and school districts to explore the contribution that technology can make to schools. The partnership was forged because Apple Computer Inc.'s vision of a *Learning Society* complements the strategic direction for the future use of technology in the State Education Department's *Long-Range Plan for Technology in Elementary and Secondary Education in New York State*.

> ***"...as a result of our collaboration, selected school districts will provide information and direction to other school districts that are working to implement the vision of the future."***
>
> ***– Jack Murphy, Vice President for Eastern Operations, Apple Computer, Inc.***

"The New York State/Apple Computer, Inc. partnership will complement the *Long-Range Plan for Technology* by providing enhanced support for the teaching/learning process," said Jack Murphy, Vice President for Eastern Operations, Apple Computer, Inc. "I believe the project will assist in the development and implementation of the recommendations Commissioner Sobol has made to the Board of Regents in the *New Compact for Learning*," noted Murphy.

"Our mutual objective is to explore the role of technology in one or more dimensions of the educational system, including the student, teacher, administrator, and classroom dimensions," said Murphy. "We expect that as a result of our collaboration, selected school districts will provide information and direction to other school districts that are working to implement the vision of the future."

The partnership includes two major phases:

Phase 1 Partnership Projects. Five schools were selected by Apple Computer, Inc. in the summer of 1990 to receive a significant amount of computer hardware, software, training, and technical assistance to implement the State Education Department's and Apple Computer, Inc.'s shared vision of the future use of technology. Figure 1 identifies the geographical location of each site.

The five sites received the following configuration of technology:

- Twenty Macintosh computers per site for teacher and student use. The classroom configuration at each site includes three to five student workstations and a teacher workstation per classroom.
- One laser printer,
- One Macintosh administrative workstation,
- The assistance of an Apple system engineer to help with installation and networking,
- Training of teachers and administrators on Macintosh fundamentals, hypercard applications, and interactive media,
- Apple Computer, Inc's Visual Almanac, an interactive laser disc resource, and
- Hardware maintenance for up to one year.

Profiles of the five Phase 1 sites are as follows:

Buffalo City Schools,
Buffalo Science Magnet School/PS 59.

PS 59 is Buffalo's Science and Mathematics Magnet School. The school includes two separate buildings, each of which is linked to one of Buffalo's successful city institutions: an elemen-

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Robert M. Trombly
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

1205842

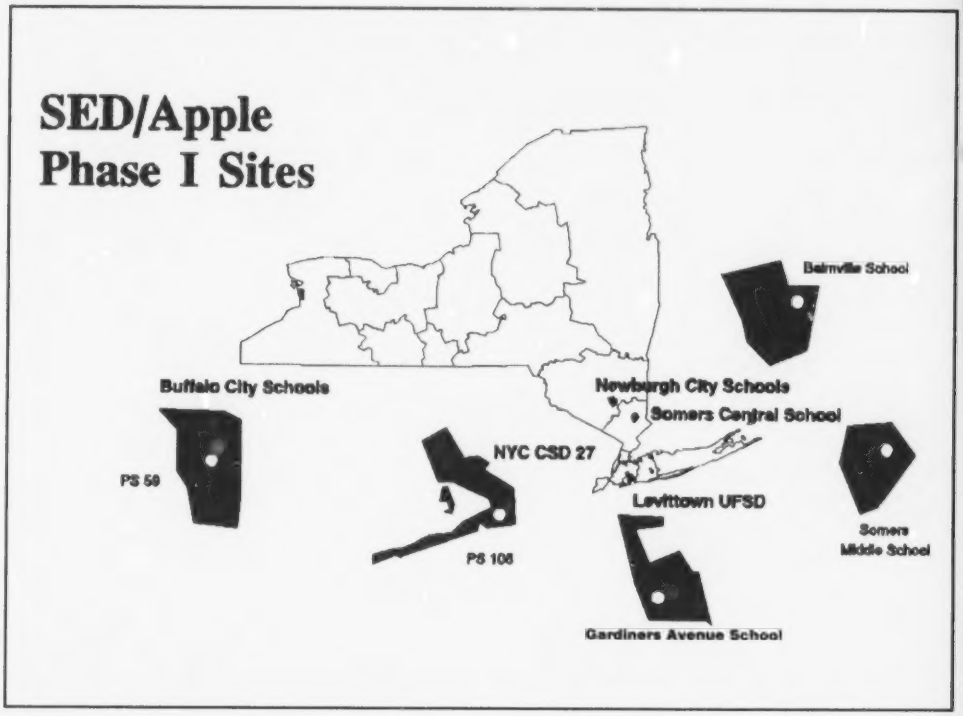


Figure 1. *Location of Phase I buildings within school district boundaries and Regional Information Center areas.*

tary building that extends from the Buffalo Museum of Science and a Junior High facility at the Buffalo Zoological Gardens. There are 883 students currently enrolled in PS 59. Education units within the Museum of Science and the Zoological Gardens have collaborated closely with PS 59's professional staff to share resources and offer enriched programs to students.

> ***"Children who study at the Science Magnet School will be able to shape the tools they will need to dip into infinite reservoirs of information."***
>
> ***– Joseph Parana, Computer Resource Specialist at the Museum Magnet School.***

PS 59 installed its first Apple lab of approximately 30 workstations in 1983 to provide students with word processing and database applications in support of the learning environment. Since then, 260 Macintosh workstations have been installed throughout the school's elementary building to provide comprehensive instructional and management functions. Most equipment has been configured into instructional networks shared by four classes at each grade level. Each network includes 20 Macintosh student workstations, 4 printers and 2 teacher workstations. In addition, there is a 26 workstation Computer Center for large group instruction and presentations. The workstations are used to access, produce, and share information on the network.

All workstations are connected by a fiberoptic EtherNet backbone to a central facility consisting of file servers, modems and CD ROM drives. This provides communications to remote sites and access to electronic databases. International communications is provided through AppleLink Global Education. A high speed data connection links the Zoo and Museum components of the Magnet School program and provides connection to Technology Network Ties (TNT) from all workstations.

Each grade level is supported by an interactive laservideo workstation, overhead projection system, CD ROM, and other technologies for multimedia production and presentation.

The technological resources and assistance that PS 59 has received for its selection as a Phase 1 project will enable the school to continue to expand its network and provide increased access to computer resources for students and educators. "Children who study at the Science Magnet School will be able to shape the tools they

will need to dip into infinite reservoirs of information," said Joseph Parana, Computer Resource Specialist at the Museum Magnet School. "They will make friends with the changing technologies so that no challenge of the future will be insurmountable."

Levittown Union Free School District, Gardiners Avenue School.

Gardiners Avenue Elementary School, which is located in Nassau County, is a K-6 building with an enrollment of 607 students.

In 1988, a Computer Planning Cadre was established with K-12 teacher and administrator representatives from the 11 school buildings within the district. The Planning Cadre met with educators throughout the district, including each building's Parent Teacher Association(PTA), to solicit their recommendations for the development of a comprehensive technology plan.

Levittown's future "vision" of technology was guided by the State's *Long-Range Plan for Technology* and the *Technology Planning for Improving Schools* (*TPIS*) model. The final plan was jointly approved by the Superintendent of Schools and the Board of Education.

> ***"We seek to combine the best in technology with the best in education in order to prepare our children for the 21st century."***
>
> ***– Frances C. Pertusi, Director of Computer Instruction, Levittown UFSD***

Gardiners Avenue Elementary School has been designated a Learning Society Pilot School by the district. Leading software developers, such as ABC News Interactive, Optical Data Corp., Scholastic, and Josten's Learning Corporation, will use the school as a site for development of their newest applications.

Gardiners Avenue Elementary School will use their SED/Apple Computer, Inc. partnership grant to serve as:

- A district-wide pacesetter in the use of computer technology for communications and instructional applications,
- A forerunner in the uses of technology envisioned in the *Long-Range Plan for Technology* for other school districts throughout Nassau County, and
- An innovator in the use of telecommunications to connect senior citizens as electronic "computer pals" from Levittown Memorial to students in the district.

Frances C. Pertusi, Levittown's Director of Computer Instruction, views the selection of Gardiners Avenue Elementary School as a vital achievement in the future growth of technology throughout the district: "The Levittown School District has a special mission—we seek to combine the best in technology with the best in education in order to prepare our children for the 21st century; our involvement in the 'Learning Society' program is a great step toward meeting this objective."

> ***"The grant is a giant step toward our goal of improving our students' access to information..."***
>
> ***– John Forsberg, Computer Coordinator, Somers Middle School***

Somers Central School District, Somers Middle School.

Somers Middle School, located in Westchester County, is a grades six to eight building with an enrollment of 550 students. Since 1985, Somers has installed over 80 Macintosh computers in each of its curriculum areas, including the establishment of two Macintosh labs. Students and teachers use the computers as tools to support learning in the classroom.

A building-wide network, consisting of five networked computer zones, was established in 1987 to link together the different geographic areas of the school building for communications and resource sharing. The network includes a file server for instructional applications and a second server for administrative functions.

Somers has installed the following telecommunications links to provide access to databases of information and communications over regional, state, and national lines:

- Students are linked through an AcuWeather network to weather stations throughout the country, enabling them to receive raw data on weather conditions from a national, regional, or local weather station. Students are able to use their computers for data analysis, presentation, or construction of their own databases. Students make predictions which, in turn, are validated against actual weather conditions.
- Students explore different on-line databases, including databases of sports records, through commercial networks. When specific records are retrieved, they are located within student-developed databases.
- Somers Central School District's computer coordinators use AppleLink to communicate with other technology coordinators.

"The grant is a giant step toward our goal of

improving our students' access to information and integrating computers into school curricula," commented John Forsberg, Somers Middle School computer coordinator.

New York City Community School District 27, Public School 105.

Public School 105, located in Far Rockaway, Queens is a K-5 building with an enrollment of 906 students. PS 105 is a Chapter 1 school, with 96 percent of the students below the poverty level.

> ***"Use the power of telecommunications to put them (students) in touch..."***
>
> ***– Dr. Bernard R. Gifford, Vice President, Education, Apple Computer , Inc.***

In September 1989, a Student to Student telecommunications project was initiated by the district to link a fifth grade classroom in PS 105 to a fifth grade classroom in PS 108, which is located in South Ozone Park across Jamaica Bay from Far Rockaway.

Student to Student was established to enhance student understanding of ethnic diversity, since the ethnic and cultural heritages of the students in each of the schools differs. The majority of students attending PS 105 are minority, at-risk children. PS 108 is attended by children from middle-income families who have immigrated from countries throughout the world, including India, Taiwan, Rumania, Italy, and Puerto Rico.

"Student to Student has thrown these children together," explained Dr. Bernard R. Gifford, Vice President, Education, Apple Computer , Inc., in his column for *Education Week* (November 14, 1990). "Use the power of telecommunications to put them in touch — not once or twice, but day after day for two years," said Gifford.

"It's like one big classroom," says Sandra Cooper, Director of Computers and Technology for Community School District 27. "Not the biggest classroom in the world...but a cultural setting roomier and more diverse than any of them has known before."

The students at both schools have used networked Macintosh computers to exchange book reports, creative writing assignments, and social studies projects based on their family histories. Students use graphics to enhance anecdotes, folklore, and ethnic family recipes.

The Phase 1 Apple grant will expand the impact of the Student to Student project by providing additional computer resources to support classroom instruction as envisioned by the *Long-Range Plan for Technology* and Apple Computer, Inc.'s *Learning Society*. Networked computers will be used in PS 105 as tools to increase communications, collaboration, and problem solving. These will be indispensable skills for preparing students to live and work in the 21st century.

Newburgh City Schools, Balmville School.

The Balmville School, located in Orange County, is a K-6 building with an enrollment of 262 students.

Newburgh City Schools is currently embarking upon *The Balmville Project* which will integrate technology in support of learning, teaching, and educational management. The award of the SED/Apple Partnership Project will be a catalyst to help the district implement this project at Balmville.

"As technology is ever evolving, the application to education requires an ongoing commitment," explained Barry Weiss, Newburgh's Director of Computer Education. "The Newburgh Enlarged City School District fully accepts both the educational responsibilities and the opportunities presented by technology to learning, teaching, and the management of education."

> ***"The Newburgh Enlarged City School District fully accepts both the educational responsibilities and the opportunities presented by technology to learning, teaching, and the management of education."***
>
> ***– Barry Weiss, Director of Computer Education, Newburgh City Schools.***

Two activities will be initially launched:

First, a plan has been developed to totally saturate Balmville's learning environment through the use of technology. Teachers, administrators, and instructional support personnel have actively participated in the development of a comprehensive technology plan. Examples of technology applications and programs that will be undertaken to support this activity include:

- installation of building-wide networking
- establishment of computer pen pals
- AT & T Learning Network Worldwide
- use of desktop publishing
- application of CD-ROM and laser disc technology in teaching/learning environment.

Second, Balmville is embarking upon the design and implementation of a Multi-Media Learning Center. Students will be able to use the Center to create their own presentations using video tapes, compact disc, laser disc, and projection equipment. It is anticipated that Balmville

students will build their multi-media presentations sequentially over a three-grade span around a central curriculum theme.

For example

- a presentation topic will be selected in grade four
- initial presentation of the topic will occur in grade five for student reaction
- a final presentation will be made in grade six.

Throughout the process, students will develop advanced communications, problem-solving, and production skills.

The five school districts selected as Phase 1 projects have implemented comprehensive technology programs within a framework of long-range planning. The new technology resources they received as Phase 1 sites will enable them to expand the use of their innovative programs to increased numbers of students, teachers, and community members.

Regional Planning for Phase 1 Implementation. Regional meetings were conducted at each of the five Phase 1 sites to review the partnership. A team of representatives from the school district, the affiliated BOCES Regional Information Center, the local Apple Computer, Inc. Branch Office, and the State Education Department met to develop plans for implementing the following critical activities: connecting student, teacher, and administrator workstations to Technology Network Ties (TNT) for statewide communications; developing approved specifications for classroom and building networking; and, planning a comprehensive staff development program for effective integration of the technology within the classroom.

In addition to these meetings, an executive briefing for State Education Department curriculum heads, New York State Legislators, and directors of professional associations will take place this spring. The briefing will include the following:

- SED/Apple Computer, Inc.'s shared vision of the future
- Newburgh City Schools' Phase 1 Project
- curriculum-based technology applications demonstration.

Phase 2 Multi-Year Partnership Program. New York State's public school districts, nonpublic schools, and BOCES were invited to submit proposals requesting computer hardware, software, training, and technical assistance to implement the vision of the future in their classrooms. A Request for Proposal was distributed to all of these constituencies in late October 1990. Applicants were asked to describe the purpose of their proposed project, their workplan, their readiness to begin the project, and their project coordinator.

Over 140 proposals were submitted prior to the December 14, 1990, deadline. Department of Education and Apple representatives reviewed the proposals throughout January 1991. The following school districts were selected to participate in the Phase 2 component of the partnership program:

1. Ithaca City School District
   Boynton Middle School and Dewitt Middle School
2. East Ramapo Central School District (Spring Valley)
   Hillcrest Elementary School and Hempstead Elementary School
3. Hyde Park Central School District
   Haviland Junior High School
4. New Hartford Central School District
   New Hartford Senior High School and Oxford Road Elementary School
5. New York City Community School District #24
   Public School 81
6. Polytechnic Preparatory Country Day School.

Conclusion. The partnership program is expected to be extended over five years from 1990 through 1995 pending a review of the program at the end of the first year. School districts may submit proposals twice yearly, in the fall and spring.

The total support provided by Apple Computer, Inc. for both phases during the first year is $1.5 million. The estimated support provided by Apple Computer, Inc. for the partnership over a five-year period is $7.5 million.

The SED/Apple Computer, Inc. Partnership Program exemplifies the benefits that result when public and private sectors collaborate to enhance the quality of education and introduce new learning opportunities for students and teachers.

For more information, contact Peter Stoll, New York State Education Department at (518) 474-2380 or SED(PSTOLL) on TNT.

THIS PAGE INTENTIONALLY LEFT BLANK

Reprinted from Technology Applications Quarterly
Spring/Summer 1991, Volume 2, Issue 3

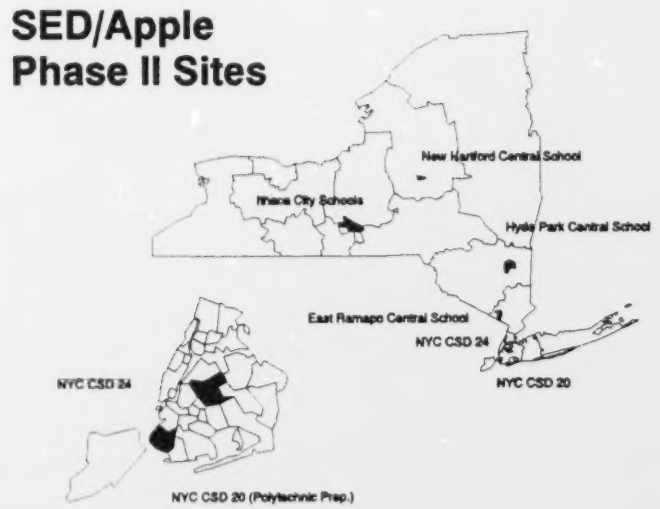
SED/APPLE COMPUTER, INC. PHASE 2 PROJECTS SELECTED

Six school districts were recently selected to participate in the first cycle of the State Education Department/Apple Computer, Inc. Phase 2 Partnership Program. These sites were chosen from over 140 applications submitted by school districts in response to a Request for Proposal. State Education Department and Apple staff reviewed the applications throughout December 1990 and made the final selection in January 1991.

There are now eleven SED/Apple Computer, Inc. projects currently funded under the partnership program. In an earlier initiative conducted in the summer of 1990, five districts were chosen as Phase 1 partnership sites. Additional sites will be selected twice yearly for a five year period.

The new Phase 2 sites include five public school districts and one nonpublic school (see map for the location of the sites):

- Ithaca City School District
- East Ramapo Central School District (Spring Valley)
- Hyde Park Central School District
- New Hartford Central School District
- New York City Community School District #24
- New York City Community School District 20 (Polytechnic Preparatory Country Day School)



Each of the new Phase 2 sites received teacher and student computer workstations, cabling, software products, training, and technical assistance for installation and networking. Profiles of the six Phase 2 sites are as follows:

Ithaca City School District
Boynton Middle School and Dewitt Middle School

The Phase 2 project at the Ithaca City School District includes the Boynton Middle School, which has an enrollment of 530 students, and the Dewitt Middle School, which has an enrollment of 635 students. Both sites are sixth - eighth grade schools.

PROJECT FOCUS
Development of technology-rich science units for students in Boynton and Dewitt Middle Schools.

The district has developed a long-range technology plan based upon the State Education Department's *Technology Planning for Improving Schools* (*TPIS*) model. Both middle schools are currently connected to Technology Network Ties (TNT) for electronic mail. The project coordinator uses TNT's computer conferencing capability for communications throughout the region and State.

Ithaca will use the resources received through this partnership to develop technology-rich science units for students in both middle schools. The technology-based science units are intended to engage students in teacher-designed and small group-designed research problems that complement the directions set forth in the State's *Long-Range Plan for Technology in Elementary and Secondary Education in New York State*.

East Ramapo Central School District (Spring Valley)
Hillcrest Elementary School and Hempstead Elementary School

An intermediate school and a primary school will serve as the project sites in East Ramapo's Phase 2 project. Hillcrest Elementary School is a 4-6 building with an enrollment of 384 students. Hempstead Elementary is a primary school that includes grades K-3 and a total enrollment of 492 students.

PROJECT FOCUS
Use of computer workstations/tool software for the enrichment of content and problem-solving objectives for third and fourth grade students in Hillcrest and Hempstead Elementary Schools.

The district is a pilot district for the State Education Department's Excellence and Accountability Program (EAP). East Ramapo also uses the Comprehensive Instructional Management System (CIMS) Social Studies Program for all students in grades one through six.

Currently, East Ramapo's central offices are connected to TNT for electronic mail and computer management services. Plans are underway to connect individual school buildings in the district to TNT through the BOCES Regional Information Center.

Third and fourth grade students in the two project sites will use computer workstations and tool software received as part of their Phase 2 project to enrich their

understanding of content and problem-solving objectives throughout the curriculum. Teachers will be linked to their colleagues across the State using the TNT network.

Hyde Park Central School District
Haviland Junior High School

The Haviland Junior High School, which includes grades 7 and 8 and has an enrollment of 594 students, is the selected site for Hyde Park Central School District's Phase 2 project.

PROJECT FOCUS
Employment of multi-media and hypermedia to design an interdisciplinary curriculum for students at the Haviland Junior High School.

Hyde Park has developed an extensive staff technology inservice program, in which 30 professionals have received a 60 hour program in hypermedia. In addition, the district has provided a 6-day technology institute entitled, "Bridges to Understanding," which includes training on laser disk applications in the curriculum.

The district is an Excellence and Accountability pilot site and plans have been developed with the BOCES Regional Information Center to link all district offices and instructional labs to TNT.

The Phase 2 project will provide Haviland's teachers and students with multi-media and computer network resources for designing an interdisciplinary curriculum at the middle school level. The project plan supports the recommendations of the State's *Long-Range Plan for Technology* and Apple's *Building a Learning Society*.

New Hartford Central School District
New Hartford Senior High School and Oxford Road Elementary School

A high school and an elementary school will be linked electronically in the Phase 2 project at New Hartford Central School District. The New Hartford Senior High School is a 10-12 building with an enrollment of 663 students. The Oxford Road Elementary School includes grades K through 6 and has 345 students enrolled.

PROJECT FOCUS
Use of clustered workstations to link three classrooms at New Hartford Senior High School with a fourth grade classroom in Oxford Road Elementary School for communications and resource sharing.

New Hartford has been a Model Schools district for the past three years and has participated in regional training on the *Technology Planning for Improving Schools* (*TPIS*) model. New Hartford is a test site for the *Aristotle/AppleShare* network and is currently connected to TNT for electronic mail and computer conferencing. The district's teacher center has trained 80% of the staff on tool software applications.

The Phase 2 project at New Hartford involves the use of clustered workstations to link three classrooms at the high school with a fourth grade classroom in the elementary school for communications and resource sharing.

New York City Community School District #24
Public School 81

Public School 81, in Community School District #24, is a K-5 building with 1,072 students enrolled. PS 81 has installed two computer labs for their reading programs and is currently implementing a separate multimedia center using interactive laser discs, CD-ROM, and video technology.

PROJECT FOCUS
Use of multi-media and communications technology to help elementary students in PS 81 prepare research reports reflective of their learning styles.

The district has an extensive Compensatory Education and Congruence Program and is being wired for the Automate the Schools (ATS) project, which will allow access to electronic mail and the entire TNT statewide network.

This Phase 2 project will provide resources for students' use of multi-media in preparing their research reports in a format that reflects their learning style. In addition, the project will involve accessing electronic bulletins as well as the TNT network for student and teacher communications.

Polytechnic Preparatory Country Day School

Polytechnic Preparatory Country Day School is a nonpublic 5-12 school with an enrollment of 633 students. The school has installed an extensive computer center of 25 networked Macintosh computers for student and teacher use. The student library is entirely computer-based and is accessible to students and faculty at school and from home over modems. Polytechnic is a model school for the Dewitt/Wallace Scholarship Program, which encourages minority college students to enter the field of teaching.

PROJECT FOCUS
Use of computer networking for enhancing student involvement in data collection activities related to science and the world.

Polytechnic Preparatory Country Day School will use the mini-lab they receive as a Phase 2 project to enhance student involvement in the data collection activities required for the fundamental discovery approach used in learning about science and the world.

Conclusion. A new Public Policy Institute of New York State, Inc. report issued in March 1991, *Technology in New York's Classrooms: One Key to Improving Educational Outcomes*, underscored the educational benefits of public-private sector partnerships, such as the SED/Apple Computer, Inc. Program. "Business can press in general for a restructuring

of the schools, including a new focus on technology", stated the report. "To get business involved and to make the best possible use of help available from the private sector, the Board of Regents has prepared a plan for a joint business-school partnership to speed up the installation of technology in the schools. The plan calls for asking businesses to make donations and expertise that will help move technology into the classroom."

The SED/Apple Computer, Inc. Partnership Program illustrates the opportunities that result when education and industry collaborate to plan effectively for the future use of technology for enhancing learning and restructuring schools.

" . . . the Board of Regents has prepared a plan for a joint business-school partnership to speed up the installation of technology in the schools."
- *Technology in New York's Classrooms*, The Public Policy Institute of New York State., Inc., March 1991

SED/Apple Phase II Sites

SED/Apple Phase II Sites